Winter **

Flood Control Project Maintenance Levee Inspections

LMA District Cover Sheet

Spring 2019 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0007

Summer **

Fall

Spring

		(March - May)	(June - August)	(September - November)	(December - February)					
† Overall LMA	A Rating (Fall Only)									
		** Non-receipt of Summ Reports may effect or								
† SPRING INSPECTIONS: Or de		ratings are not determ			ual maintenance					
	<u>FALL INSPECTIONS:</u> The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.									
Comments										

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles
Unit No. 01 Feather River	Right	11.90

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/4/2019 - 4/4/2019			
DWR Inspector	Sterling York			
Accompanied By	Shawn Freitag Sutter Maintenance Yard			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start		Rating **	Α	Issue No.		1	
LM End		Issue Type +	Ma	Location *			
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Operations & Maintenance				0		0
Item	Manuals				0		0
DWR ID DWR_MA0007_01_s _ 2013_1							
		Comn	nent Cod	le			
		Inspecto	or Comm	nent			
	New O&M manuals were given to the LMA now that construction is complete. The O&M manuals are located at the Sutter Maintenance						

No Photos

LM Start		Rating **	Α	Issue No.		3	
LM End		Issue Type +	Ma	Location *			
Category	Earthen L	.evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item		cy Supplies &			0		0
пеш	Equipmer	nt			0		0
DWR ID	DWR_MA0	007_01_s _ 201	3_3				
		Comn	nent Coo	de			

No Photos

Inspector Comment

Emergency supplies and equipment are stored at the Sutter Maintenance Yard.

LM Start		Rating **	Α	Issue No.		4	
LM End		Issue Type +	Ма	Location *			
Category	Earthen L	evee		GPS La	atitud	de/Longitude	
Calegory				Start		End	
Item	Flood Preparedness & Training				0		0
пеш					0		0
DWR ID	DWR_MA0	007_01_s _ 201	3_4				
		Comn	nent Cod	le			
		Inspecto	or Comm	ent			

No Photos

Inspector Commer

Sutter Maintenance Yard employees attend the annual Flood Fight class put on by DWR.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	0.00	Rating **	Α	Issue No.	10		
LM End	11.89	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Category		Start			End		
Item	Vegetatio	Vegetation			38°	39.439672 °	
item				-121.637634 °		-121.641504°	
DWR ID	DWR_MA0	007_01_s _ 201	9_10				
Comment Code							
V1 · Contro	ol annual c	rass and wee	ds on th	e levee slor	es:	and	

easements.

Inspector Comment

The annual vegetation is well maintained, Spring 2019.

Photo 1 of 1 : SP_2019_MA0007_200_10_20190409_00028.jpg



View looking upstream landside at the well maintained vegetation alongside the irrigation ditch, Spring 2019.

LM Start	0.00	Rating **	Α	Issue No.		Issue No. 11		11
LM End	11.89	Issue Type +	Ma	Location *		WS		
Catagony	Earthen Levee				GPS Latitude/Longitude			
Category		Start		End				
Item	Vegetatio	n		39.3109	38°	39.439672°		
пеш				-121.637634°		-121.641504°		
DWR ID	DWR_MA0	007_01_s _ 201	9_11					

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

The annual vegetation is well maintained, Spring 2019.

Photo 1 of 1 : SP_2019_MA0007_200_11_20190409_00029.jpg



View looking upstream waterside at the well maintained vegetation and re-grading of the levee crown, Spring 2019.

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	0.31	Rating **	N	Issue No.		69	
LM End	0.37	Issue Type +	Ма	Location *	WS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Trim / Thin Trees			39.314991°		39.315693°	
пеш				-121.63503	8°	-121.634459 °	
DWR ID DWR_MA0007_01_s _ 2016_69					·		
Comment Code							

T5 : Tree stumps.

Inspector Comment

Several tree stumps at levee toe still exist Fall 2018.



View looking downstream of several tree stumps at the levee toe on the waterside.

LM Start	0.56	Rating **	A/W	Issue No.		68	
LM End	0.56	Issue Type +	Ob	Location *	LS		
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory			Start		End		
Item	Erosion / Bank Caving			39.317974°		39.317974°	
пеш				-121.632542 °		-121.632542 °	
DWR ID	DWR_MA0	007_01_s _ 201	6_68				

Comment Code

E1: Note and monitor erosion site.

Inspector Comment

Eroding slope due to irrigation ditch on landside slope has been repaired but should be monitored, Fall 2018.

LM Start	0.56	Rating **	A/W	Issue No.	68 (cont)
LM End	0.56	Issue Type +	Ob	Location *	LS

Photo 1 of 2: SP_2019_MA0007_200_68_20190305_00007.jpg



View of repair to the erosion site, Fall 2018.

Photo 2 of 2: SP_2019_MA0007_200_68_20190305_00008.jpg



View of repair to the erosion site, Fall 2017.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	0.92	Rating **	С	Issue No.		67	
LM End	0.92	Issue Type +	Ма	Location *	LS		
Earthen Levee			GPS Latitude/Longitude				
Calegory	Category		Start		End		
Item	Vegetatio	getation		39.3231	18°	39.323118 °	
Item				-121.63220	05 °	-121.632205 °	
DWR ID	DWR_MA0	007_01_s _ 201	6_67				

Start End

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

The black berry bushes are continued to be sprayed and maintained at the levee toe and are over 20 feet from the levee crown, Spring 2019.

Rating ** Issue No. LM Start 1.21 С 33 1.21 Issue Type + Location * WS LM End Fn Earthen Levee GPS Latitude/Longitude Category End Encroachments 39.327187° 39.327187° Item -121.632395 ° -121.632395 DWR ID DWR_MA0007_01_s _ 2012_33

Comment Code

BU: Building

Inspector Comment

A permit was found for this residence. PN9040.

No Photos

No Photos

LM Start	1.54	Rating **	М	Issue No.		12	
LM End	1.54	Issue Type +	En	Location *		WS	
Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item	Encroach	Encroachments		39.33184	۱5°	39.331845	0
пеш				-121.633220 °		-121.633220	0
DWR ID	DWR_MA0	007_01_s _ 201	9_12				

Comment Code

PR : Prunings

Inspector Comment

Remove prunings from levee slope, Spring 2019.

Photo 1 of 1: SP_2019_MA0007_200_12_20190409_00030.jpg



View looking upstream waterside of prunings placed on the levee slope, Spring 2019.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.55	Rating **	U	Issue No.		70
LM End	1.55	Issue Type +	En	Location *		
Category Supplemental			GPS Latitude/Longitude			
			Start		End	
Item	DWR UC	P Field Study		39.331934°		39.331934°
item				-121.633246 °		-121.633246 °
DWR ID	DWR ID 16928					
Comment Code						

Inspector Comment

FS ID:53989 DS_ID:16928 EP NO: N/A Repair Type: Urgent

Crossing Status: Found

UCIP Comments: 05/08/2019 LMA Supervisor, Shawn Freitag, has completed a temporary repair to prevent water from flowing from LS irrigation ditch to WS. Burrow hole on LS has been plugged and concrete bags have been placed to prevent water from entering the pipe and causing further damage to the pipe section through levee. Crossing will continued to be monitored by LMA. Need to coordinate with DWR DMP to address permanent solution for abandoned crossing. (O. Magana - DWR UCIP) 05/07/2019 DWR UCIP was notified by LMA Supervisor, Shawn Freitag, of pipe leak observed on LS and causing flooding to WS. Burrow hole is allowing flow to enter pipe. Hole present on pipe section near the concrete headwall. Erosion (sloughing) observed on LS slope. Pipe section tied to WS concrete box that runs parallel to levee was flooding Kiwi Orchard. Section of concrete distribution box was removed to allow for proper drainage and prevent flooding to Kiwi Orchard. Measures by LMA Supervisor are being pursued to stop flow through pipe to prevent further erosion damage through the levee (damage identified during DWR DMP Phase 1 internal video inspection). Record has been updated to reflect the DMP Phase 1 inspection report, crossing has been upgraded from Non-Urgent to Urgent based on the condition of the pipe through the levee. (O. Magana - DWR UCIP)12/07/2018 Encroachment owner information: Sukhraj Singh Pamma, 9850 Sheldon Avenue, Live Oak, CA 95953-9784, 1-530-695-2490. The CVFPB sent an encroachment violation notice on August 16, 2011 to Mr. and Ms. Ratana. Information obtained from the Levee_Encroachment_listing_11288.pdf which was received from SBFCA. Need to coordinate with CVFPB to determine status of permit. (O. Magana - DWR UCIP) 08/09/2017 Crossing is still present, no modifications were made to this crossing. Crossing still appears to be abandoned and not in use recommend contacting owner to determine status of crossing. This pipe

was not part of the Feather River West Levee Improvements, Project D. Pipe is located outside the project limits. Project Improvements began at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. (DWR UCIP - O. Magana)08/02/2017 Unknown if crossing was modified, not shown in record drawings. (DWR UCIP - O. Magana) 05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Same as last inspection.12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.11/06/2013 Same as last inspection.05/13/2013

SBFCA project recommends replacing in accordance with title

Photo 1 of 3: UCIP_SP_2019_53989_79201.jpg

LS view: Internal view of pipe condition during DMP Phase 1 Inspection.

* Location	
LS : Land Side WS : Water Side	N/A: Not Applicable

Rating : Acceptable Minimally Acceptable U: Unacceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain Issue Type Ma: Maintenance Deficiency Ob : Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

23.05/10/2013 Same as last inspection. LS scour behind structure needs to be repaired.10/31/2012 crossing appears abandoned, slide gate is mising on landward side; wood frame remains on LS; scour hole present on LS, 3 feet by 3 feet, near wood frame. (DWR UCIP - O. Magana)

FIELD_STRUCT_DESC: *ABANDONED* 12-inch corrugated metal drainage pipe through the levee, 8.2 feet below the crown. Slide gate on the landside (LS) is no longer present. Concrete "U" headwall at the waterside (WS) toe. Irrigation ditch located on the LS. [Additional Reference(s): DWR Levee Log, 2005]
FS Date: 5/7/2019 12:40:00 PM

LM Start	1.55	Rating **	U	Issue No.	70 (cont)
LM End	1.55	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_53989_79230.jpg



LS view: section of levee has slipped at pipe crossing.

LM Start	1.55	Rating **	U	Issue No.	70 (cont)
LM End	1.55	Issue Type +	En	Location *	



LS view: hole visible on LS, appears to be linked to burrow hole that is allowing flow to go into pipe.

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.55	Rating **	A/W	Issue No.		9	
	1.71	Issue Type +	Ma	Location *	WS		
LM End	1.71	issue Type +	IVIA	Location		VVS	
Category			GPS Latitude/Longitude				
Category				Start		End	
Item		ACE Erosion S	Survey,	39.3320	00°	39.334240	0
пеш	DRAFT			-121.6331	78 °	-121.633908	0
DWR ID	DWR_MA0	007_01_f _ 201	8_9				

Comment Code

Inspector Comment

2017 Site ID: FHR 47.5 R

Status: Eroding

2017 Field Notes: Vertical face into the levee prism, huge eddy. Site History: 2011 - The toe of the levee has been excavated by the land owner. Small holes throughout the site have been filled with a plaster like substance. Large canal on landside slope and over the levee toe.

No Photos

** Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated

N: Not Inspected/Rated

C: Corrected C: Corrected

A/W: Acceptable but Monitor & Maintain

** Rating

A: Asceptable M: Not Inspected/Rated

C: Corrected C: Corrected

A/W: Acceptable but Monitor & Maintain

** Issue Type

Ma: Maintenance Deficiency

Ob: Design & System Obsolescence

En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.71	Rating **	М	Issue No.		71		
LM End	1.71	Issue Type +	En	Location *				
Category			GPS Latitude/Longitude					
Calegory	Calegory			Start		End		
Item	DWR UC	P Field Study		39.33429	94 °	39.334294		
пеш				-121.63400)8 °	-121.634008		
DWR ID	20816				·			
	Comment Code							

Inspector Comment

FS_ID:53948 DS_ID:20816 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

FS Date: 5/7/2019 12:40:40 PM

UCIP Comments: 05/07/2019 (O. Magana - DWR UCIP)12/07/2018 New encroachment owner information: Sukhraj Singh Pamma, 9850 Sheldon Avenue, Live Oak, CA 95953-9784, 1-530-695-2490. Information obtained from the Levee_Encroachment_listing_11288.pdf received from SBFCA. The permit listed in the pdf file is 11987. This permit was issued to the Cox Brothers in 1977. Need to have new owner apply for Permit Name Change with the CVFPB. (O. Magana - DWR UCIP)

08/09/2017 It appears that this pipe is used to water the orchard located on the WS. Dense vegetation present along the WS slope, recommend clearing vegetation to allow for proper inspection of levee slope. No permit has been idenfied since 2012. (DWR UCIP - O.

Magana)08/02/2017 After reviewing record drawings it appears this crossing has remained. This pipe was not part of the Feather River West Levee Improvements, Project D. Pipe is located outside the project limits. Project Improvements began at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. (DWR UCIP - O. Magana)

05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Crossing has been modified since last inspection. 3' black plastic pipe is now running through the metal pipe and the difference was capped and welded. 12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.11/06/2013 Same as last inspection.05/13/2013 SBFCA project recommends removal. Permit number and owner in detailed report book.05/07/2013 Same as last inspection. Recommend finding owner.10/30/2012 Crossing was installed about 1 foot deep--need permit authorizing wrk. (DWR UCIP - O. Magana) FIELD_STRUCT_DESC: 12-inch steel irrigation pipe through the levee, 1 foot below the crown. Crossing on the landside (LS) is attached to a weir above ground. Siphon breaker located on the waterside (WS). No opening on the WS. No permit has been identified since crossing was field discovered in 2012. (12-inch pipe across the berm, levee, and Sutter-Butte Canal was authorized under Permit 11987, 1977 - Cox Brothers). [Additional Reference(s): Sutter Butte Flood Control Agency (SBFCA) Feather River West Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].

Photo 1 of 3: UCIP_SP_2019_53948_77330.jpg



LS view: pipe visible along LS canal.

* Location		** Rating		+ Issue Type
	LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
	WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
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Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.71	Rating **	М	Issue No.		71 (cont)
LM End	1.71	Issue Type +	En	Location *		
Category				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UC	IP Field Study		39.33429	4°	39.334294°
пеш				-121.63400	8 °	-121.634008°
DWR ID	20816					

Comment Code Inspector Comment

FS_ID:53948 DS_ID:20816

EP NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

FS Date: 5/7/2019 12:40:40 PM

UCIP Comments: 05/07/2019 (O. Magana - DWR UCIP)12/07/2018 New encroachment owner information: Sukhraj Singh Pamma, 9850 Sheldon Avenue, Live Oak, CA 95953-9784, 1-530-695-2490. Information obtained from the Levee_Encroachment_listing_11288.pdf received from SBFCA. The permit listed in the pdf file is 11987. This permit was issued to the Cox Brothers in 1977. Need to have new owner apply for Permit Name Change with the CVFPB. (O. Magana - DWR UCIP)

08/09/2017 It appears that this pipe is used to water the orchard located on the WS. Dense vegetation present along the WS slope, recommend clearing vegetation to allow for proper inspection of levee slope. No permit has been idenfied since 2012. (DWR UCIP - O.

Magana)08/02/2017 After reviewing record drawings it appears this crossing has remained. This pipe was not part of the Feather River West Levee Improvements, Project D. Pipe is located outside the project limits. Project Improvements began at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. (DWR UCIP - O. Magana)

05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Crossing has been modified since last inspection. 3' black plastic pipe is now running through the metal pipe and the difference was capped and welded. 12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.11/06/2013 Same as last inspection.05/13/2013 SBFCA project recommends removal. Permit number and owner in detailed report book.05/07/2013 Same as last inspection. Recommend finding owner.10/30/2012 Crossing was installed about 1 foot deep--need permit authorizing wrk. (DWR UCIP - O. Magana) FIELD_STRUCT_DESC: 12-inch steel irrigation pipe through the levee, 1 foot below the crown. Crossing on the landside (LS) is attached to a weir above ground. Siphon breaker located on the waterside (WS). No opening on the WS. No permit has been identified since crossing was field discovered in 2012. (12-inch pipe across the berm, levee, and Sutter-Butte Canal was authorized under Permit 11987, 1977 - Cox Brothers). [Additional Reference(s): Sutter Butte Flood Control Agency (SBFCA) Feather River West Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].



Overview of levee crown at crossing looking downstream.

* Location	** Rating		+ Issue Type
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WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
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Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.71	Rating **	М	Issue No.	71 (cont)				
LM End	1.71	Issue Type +	En	Location *					
Category				GPS Latitude/Longitude					
Calegory	Category			Start		End			
Item	DWR UC	IP Field Study		39.33429	4 °	39.334294°			
пеш				-121.63400	8°	-121.634008 °			
DWR ID 20816									
	Comment Code								

Inspector Comment

FS_ID:53948 DS_ID:20816 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

FS Date: 5/7/2019 12:40:40 PM

UCIP Comments: 05/07/2019 (O. Magana - DWR UCIP)12/07/2018 New encroachment owner information: Sukhraj Singh Pamma, 9850 Sheldon Avenue, Live Oak, CA 95953-9784, 1-530-695-2490. Information obtained from the Levee_Encroachment_listing_11288.pdf received from SBFCA. The permit listed in the pdf file is 11987. This permit was issued to the Cox Brothers in 1977. Need to have new owner apply for Permit Name Change with the CVFPB. (O. Magana - DWR UCIP)

08/09/2017 It appears that this pipe is used to water the orchard located on the WS. Dense vegetation present along the WS slope, recommend clearing vegetation to allow for proper inspection of levee slope. No permit has been idenfied since 2012. (DWR UCIP - O.

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05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Crossing has been modified since last inspection. 3' black plastic pipe is now running through the metal pipe and the difference was capped and welded. 12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.11/06/2013 Same as last inspection.05/13/2013 SBFCA project recommends removal. Permit number and owner in detailed report book.05/07/2013 Same as last inspection. Recommend finding owner.10/30/2012 Crossing was installed about 1 foot deep--need permit authorizing wrk. (DWR UCIP - O. Magana) FIELD_STRUCT_DESC: 12-inch steel irrigation pipe through the levee, 1 foot below the crown. Crossing on the landside (LS) is attached to a weir above ground. Siphon breaker located on the waterside (WS). No opening on the WS. No permit has been identified since crossing was field discovered in 2012. (12-inch pipe across the berm, levee, and Sutter-Butte Canal was authorized under Permit 11987, 1977 - Cox Brothers). [Additional Reference(s): Sutter Butte Flood Control Agency (SBFCA) Feather River West Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].

Photo 3 of 3: UCIP_SP_2019_53948_77332.jpg



WS view: dense vegetation along WS slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.72	Rating **	М	Issue No.		72	
LM End	1.72	Issue Type +	En	Location *			
Category Supplemental				GPS Latitude/Longitude			
Calegory			Start		End		
Item	DWR UC	IP Field Study		39.33433	36 °	39.334336 °	
Item			-121.63404	16 °	-121.634046 °		
DWR ID	16927						

Comment Code

Inspector Comment

FS_ID:53949 DS_ID:16927 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 05/07/2019 (O. Magana - DWR UCIP)12/07/2018 Encroachment owner information: Sukhrai Singh Pamma, 9850 Sheldon Avenue, Live Oak, CA 95953-9784, 1-530-695-2490. Information obtained from the Levee_Encroachment_listing_11288.pdf which was received from SBFCA. Need to coordinate with CVFPB to determine status of permit. (O. Magana - DWR UCIP) 08/09/2017 Crossing is still present, unable to confirm is crossing is still in use. Recommend contacting owner to determine status, remove dense vegetation blocking outlet, and to obtain permit authorizing crossing. (DWR UCIP - O. Magana) 08/02/2017 After reviewing record drawings it appears this crossing has remained. This pipe was not part of the Feather River West Levee Improvements, Project D. Pipe is located outside the project limits. Project Improvements began at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. (DWR UCIP - O. Magana)

05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 WS headwall is still damaged and no repairs were made to this pipe. Looks like the SBFCA project skipped over this area so pipe was not replaced as it was listed to be.12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.05/13/2013 SBFCA project recommends replacing with accordance to title 23.05/07/2013 Same as last inspection on WS headwall does not impede structure performance.10/31/2012 WS headwall rebar exposed. This crossing was listed in the USACE Periodic Inspections as ID# USACE_CESPK_MA07_2010_a_0051 however, no issue listed. (DWR UCIP - O. Magana)

FIELD_STRUCT_DESC: 10-inch polyvinyl chloride (PVC) pipe encased in a 12-inch corrugated metal irrigation pipe through the levee, 7 feet below the crown. Concrete U-shaped headwall at the waterside (WS) toe. Concrete headwall and slide gate on the landside (LS). Concrete weir in the canal. (Existing 10-inch PVC pipe and 12-inch corrugated metal [concrete indicated in record drawings] irrigation pipe crossing remained during the Feather River West Levee Improvements, Project D). [Additional Reference(s): DWR Levee Log, 2005. Sutter Butte Flood Control Agency (SBFCA) Feather River West Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-

SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].



LS view: screw gate and concrete headwall visible on LS.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

FS Date: 5/7/2019 12:41:21 PM

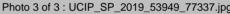
LM Start	1.72	Rating ** M		Issue No.	72 (cont)
LM End	1.72	Issue Type +	En	Location *	

Photo 2 of 3: UCIP_SP_2019_53949_77336.jpg



Overview of levee crown at crossing.

LM Start	1.72 Rating **		М	Issue No.	72 (cont)
LM End	1.72	Issue Type +	En	Location *	





WS view: guardrail along the WS slope and concrete headwall visible on

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.76	Rating **	М	Issue No.		73	
LM End	1.76	Issue Type +	Ма	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory			Start		End		
Item	DWR UCIP LMA Responsibility			39.33486	88°	39.334868 °	
пеш			-121.63377	'3 °	-121.633773 °		
DWR ID	16926					·	

Comment Code

Inspector Comment

FS_ID:53950 DS_ID:16926 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 05/07/2019 (O. Magana - DWR UCIP)12/07/2018 Encroachment Owner is Butte Water District c/o Mark Orme, District Manager, 735 Virginia Street, Gridley, CA 95948, 1-530-846-3100. Information obtained from the Levee_Encroachment_listing_11288.pdf obtained from SBFCA which also indicates CVFPB Permit Process - New Permit. Need to coordinate with CVFPB to determine status of permit. (O. Magana - DWR UCIP)

08/09/2017 Dual 60-inch pipes are still present--no modifications appear to have been made to this structure. No permit or owner has been identified. Need to contact owner to notify of safety issue regarding the missing covers for CMP riser. (DWR UCIP - O. Magana)08/02/2017 After reviewing record drawings it appears this crossing has remained. Project Improvements begin at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. MA0007 project details include NO CUTOFF WALL from Sta 1765+00 (MA0007 about LM 1.73) to 1815+00 (MA0007 about LM 2.64) and LEVEE DEGRADE AND RECONSTRUCTION WITH CUT OFF WALL from Sta 1817+00 (MA0007 about LM 2.69) to Sta 2289+00, Sta 2287+00 to Sta 2290+00 (MA0007 about LM 11.60). (DWR UCIP - O. Magana)

05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Debris still present in risers and pipes were not replaced with the SBFCA project.12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.05/13/2013 SBFCA project recommends replacing in accordance with title 23.05/07/2013 Same debris issue as last inspection. Recommend repairing top cover to prevent falls. Wheel to open gate chained and locked so could not verify gate operation.10/31/2012 Debris inside riser could prevent slide gate from closing. This crossing was listed in the USACE Periodic Inspections as ID# USACE_CESPK_MA07_2010_a_0060 however, no issues noted. (DWR UCIP - O. Magana)

FIELD_STRUCT_DESC: 1 of 2: 60-inch corrugated metal gravity drainage pipe through the levee, 12.5 feet below the crown. Slide gate in a 78-inch corrugated metal pipe (CMP) well on the waterside (WS) slope. Concrete bulkheads on both ends. Reinforced concrete spillway on the WS end. (Existing 60-inch corrugated metal gravity drainage pipe crossing remained during the Feather River West Levee Improvements, Project D). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 152, March 1957 (Station

Photo 1 of 3: UCIP_SP_2019_53950_77346.jpg



Overview of levee crown looking upstream towards crossings.

* Location		** Rating		+ Issue Type
	LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
-	WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
-	CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Levee Inspection Report By Mile - Spring 2019

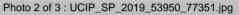
Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

1+90). Sutter Butte Flood Control Agency (SBFCA) Feather River West Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].

FS Date: 5/7/2019 12:42:03 PM

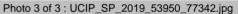
LM Start	1.76	Rating **	М	Issue No.	73 (cont)
LM End	1.76	Issue Type +	Ma	Location *	





LS view: concrete headwall with dual 60-inch crossings visible from LS.

LM Start	1.76	Rating **	М	Issue No.	73 (cont)
LM End	1.76	Issue Type +	Ма	Location *	





LS view: view of canal looking west from crossing.

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	1.76	Rating **	М	Issue No.		74		
LM End	1.76	Issue Type +	Ма	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UC	P LMA Respo	onsibility	39.3348	86°	39.334886 °		
пеш				-121.6337	83 °	-121.633783 °		
DWR ID	17011							

Inspector Comment

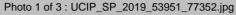
Comment Code

FS_ID:53951 DS_ID:17011 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 12/07/2018 Encroachment Owner is Butte Water District c/o Mark Orme, District Manager, 735 Virginia Street, Gridlev, CA 95948, 1-530-846-3100. Information obtained from the Levee_Encroachment_listing_11288.pdf obtained from SBFCA which also indicates CVFPB Permit Process - New Permit. Need to coordinate with CVFPB to determine status of permit. (O. Magana - DWR UCIP) 08/09/2017 Dual 60-inch pipes are still present--no modifications appear to have been made to this structure. No permit or owner has been identified. Need to contact owner to notify of safety issue regarding the missing covers for CMP riser. (DWR UCIP - O. Magana)08/02/2017 After reviewing record drawings it appears this crossing has remained. Project Improvements begin at Station (Sta) 1765+00 (MA0007 about LM 1.73) to Sta 2303+50 (ST0005 about LM 1.23), refer to record drawings for the Feather River West Levee Improvement Plans Station 1765+00 to 2368+26, Project D details. MA0007 project details include NO CUTOFF WALL from Sta 1765+00 (MA0007 about LM 1.73) to 1815+00 (MA0007 about LM 2.64) and LEVEE DEGRADE AND RECONSTRUCTION WITH CUT OFF WALL from Sta 1817+00 (MA0007 about LM 2.69) to Sta 2289+00, Sta 2287+00 to Sta 2290+00 (MA0007 about LM 11.60). (DWR UCIP - O. Magana)

05/16/2016 Feather River West Levee Improvement Project--Levee currently under construction.06/10/2015 Debris still present inside riser and pipe was not replaced with the SBFCA project.12/29/2014 Same as last inspection.05/19/2014 Same as last inspection.11/06/2013 Same as last inspection.05/13/2013 SBFCA project recommends replacing in accordance with title 23.05/07/2013 Same as last inspection. Recommend costructing cover to pevent falls. Wheel to operate gate chained and locked so gate operation could not be verified.10/31/2012 no cover; debris inside riser could prevent slide gate from closing. This crossing was listed in the USACE Periodic Inspections as ID# USACE_CESPK_MA07_2010_a_0060 however, no issues noted. (DWR UCIP - O. Magana) FIELD_STRUCT_DESC: 2 of 2: 60-inch corrugated metal gravity drainage pipe through the levee, 12.5 feet below the crown. Slide gate in a 78-inch corrugated metal pipe (CMP) well on the waterside (WS) slope. Concrete bulkheads on both ends. Reinforced concrete spillway on the WS end. (Existing 60-inch corrugated metal gravity drainage pipe crossing remained during the Feather River West Levee Improvements, Project D). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 152, March 1957 (Station 1+90). Sutter Butte Flood Control Agency (SBFCA) Feather River West





Overview of levee crown looking upstream towards crossings.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

Levee Project, Volume 4 of 6 (Project D) Feather River West Levee Improvement Plans Sta 1765+00 to 2368+26, 2016, Volume 4-SBFCA_Record_Drawings_Project D_2017.05.16.pdf, Drawing No. C-101].

FS Date: 5/7/2019 12:42:41 PM

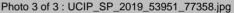
LM Start	1.76	Rating **	М	Issue No.	74 (cont)
LM End	1.76	Issue Type +	Ma	Location *	

Photo 2 of 3: UCIP_SP_2019_53951_77357.jpg



LS view: concrete headwall with dual 60-inch crossings.

LM Start	1.76	Rating **	М	Issue No.	74 (cont)
LM End	1.76	Issue Type +	Ma	Location *	





LS view: canal located on LS, photo taken from levee crown looking west.

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

LM Start	2.11	Rating **	С	Issue No.		13	
LM End	2.27	Issue Type +	En	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
ltom	Encroach	ments		39.33948	36°	39.341623 °	
пеш	Item				95 °	-121.630531 °	
DWR ID DWR_MA0007_01_f _ 2018_13							
	Comment Code						

PR: Prunings

Inspector Comment

Downed orchard trees on the levee slope have been removed, Spring 2019.

No Photos

LM Start	4.39	Rating **	М	Issue No.		39		
LM End	5.35	Issue Type +	En	Location *		LS		
Category	Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End		
Item	Encroach	ments		39.3665	47°	39.380071°		
item				-121.6475	23 °	-121.650558°		
DWR ID DWR_MA0007_01_s _ 2012_39								

Comment Code

DT : Ditch

Inspector Comment

A landside irrigation ditch is located at the levee toe.

Photo 1 of 1: SP_2019_MA0007_200_39_20190305_00003.jpg



View looking upstream landside at an irrigation ditch at the levee toe, Fall 2018.

LM Start	9.65	Rating **	U	Issue No.		45		
LM End	9.65	Issue Type +	En	Location *	LS			
Category	evee	GPS Latitude/Longitude						
Category				Start		End		
Item	Encroach	ments		39.4163	34 °	39.416384°		
пеш	Item					-121.634503 °		
DWR ID DWR_MA0007_01_s _ 2012_45								
	Comment Code							

BU: Building

Inspector Comment

A trailer is still located at the landside levee toe, no permit found.



This photo shows a building at the landside toe, no permit found.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Sutter Maintenance Yard Maintenance Area 0007

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	11.90	04/04/2019 04/04/2019	Sterling York

11.49	Rating **	M	Issue No.		40				
11.49	Issue Type +	En	Location *	WS					
Category Earthen Levee			GPS Latitude/Longitude						
	Start		End						
Encroachments				39.437454°					
			-121.6460	24 °	-121.646024°				
DWR ID DWR_MA0007_01_s _ 2016_40									
Comment Code									
BU : Building									
Inspector Comment									
No permit was found for this structure.									
	Encroachr DWR_MA0	Earthen Levee Encroachments DWR_MA0007_01_s _ 201 Comn g Inspector	Earthen Levee Encroachments DWR_MA0007_01_s _ 2016_40 Comment Coc g Inspector Comm	Earthen Levee GPS La Start Encroachments 39.43748 -121.64602 DWR_MA0007_01_s _ 2016_40	Earthen Levee GPS Latitud Start Encroachments 39.437454 -121.646024 OWR_MA0007_01_s _ 2016_40 Comment Code Inspector Comment				

Photo 1 of 1 : SP 2019_MA0007_200_40_20190305_00004.jpg

View showing structure on the waterside looking downstream.